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AKIN, GUMP, STRAUSS, HAUER & FELD
711 LOUISIANA STREET
SUITE 1900 SOUTH
HOUSTON, TX 77002

EXAMINER

LABAZE, EDWYN

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,048

Applicant(s)

CRISAN, ADRIAN

Examiner

EDWYN LABAZE

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-- Th MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 21-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Receipt is acknowledged of amendments filed on 5/14/2003.
2. Claims 1-15 and newly added claims 21-25 are presented for examination.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-7, 12-13, and 16-20 is rejected under 35 U.S.C. 102(e) as being anticipated by Vanttila (U.S. 6,173,194).

Re claims 1, 12, and 16: Vanttila discloses a data entry device 22 (col.3, line 24), which includes a key having a first data entry value associated with depressing the key 23 (col.3, lines 23-25); the key having one or more additional discrete data entry values associated with deflecting the key in a predetermined direction (col.3, lines 24-36); the key 23 having a user readable indication of each of the one or more additional discrete data entry values (col.3, lines

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37-45); and where the key is adapted for being depressed or deflected by a human fingertip (col.3, lines 29-36), further includes a key controller system 18 for receiving state data for each key and translating the state data into a data value (col.5, lines 20-67; col.6, lines 1+).

Re claim 2: Vanttila teaches an apparatus, wherein the key first data entry value is a numeric data value and the one or more additional discrete data entry values are alphabetic data values (col.3, lines 37-45).

Re claim 3: Vanttila discloses an apparatus, wherein the one or more additional discrete data values are associated with a predetermined zone/direction around a periphery of the key (col.3, lines 46-54).

Re claim 4: Vanttila teaches an apparatus, wherein the one or more additional discrete data values are associated with an adjustable zone/direction around a periphery of the key (col.3, lines 46-54).

Re claim 5: Vanttila discloses an apparatus, further comprising of a controllable display around the periphery of the key (col.4, lines 1-33).

Re claim 6: Vanttila teaches an apparatus, wherein the controllable display is an LCD 20 (col.4, line 15).

Re claim 7: Vanttila discloses an apparatus, wherein the number of predetermined zones or directions is user selectable (col.3, lines 55-67).

Re claim 13: Vanttila teaches an apparatus, wherein the plurality of keys is a 12-key telephone numeric keypad, and the additional discrete data entry values are alphabetic data values (col.3, lines 38-44).

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Re claim 17: Vanttila discloses an apparatus, further comprising a zone or direction identification system receiving zone data from each key (col.3, lines 46-54) and generating state data from the zone/position data (col.2, lines 7-14).

Re claim 18: Vanttila teaches an apparatus, which further comprising a sequence identification system receiving state data and sequence data from one or more keys and translating the state data and sequence data into the data value (col.2, lines 1-15 and col.4, lines 58-67; col.5 and 6, lines 1-37).

Re claim 19: Vanttila discloses an apparatus, which further comprising a soft key 2B, 2C generation system generating user-readable display data associated with one or more of the keys (col.4, lines 18-33).

Re claim 20: Vanttila teaches an apparatus, which further comprising a soft key identification system translating the data value based on soft key definition (col.4, lines 34-42).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanttila (U.S. 6,173,194).

The teachings of Vanttila have been discussed above.

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Re claims 8-11: Vanttila fails to teach a design with specific key shapes (i.e. square, circular, hexagonal, and octagonal).

However, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ different shapes of the key in the system of Vanttila in order to provide to attract consumer's attention. Furthermore, the different shapes and sizes of the key do not carry any unexpected result and novelty; only offer a different look and size of the device. Therefore, such modification would have been an obvious extension as taught by Vanttila.

Re claim 14: Vanttila fails to teach a design with a three-key watch keypad.

However, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to utilize a contracted three-key keypad version in the system of Vanttila wherein each key carry four states (i.e. the first key has functions "1, 2, 3, and 4"). Furthermore, the above system can be compared and substituted with different design either of "a three-key" or "a four-key" keypad (such as the teachings of Krishman U.S. 6,377,685) wherein each key can be programmed to display or depress one or more numeric data values. Moreover, such modification would have been an obvious extension of the teaching of Vanttila, therefore an expedient.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vanttila (U.S. 6,173,194) as modified in claim 14 above, and further in view of Dodd (U.S. 6,127,949).

The teachings of Vanttila have been discussed above.

Vanttila fails to teach a Qwerty keyboard.

Dodd teaches an ergonomic computer keyboard, which includes a Qwerty keyboard (col.10, lines 37-55).

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In view of the teaching Dodd, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ a Qwerty keypad into the teachings of Vanttila as modified as claim 14 above so as to maintain the conventional layout by separating the alphabetic data entry values to one side and the numeric data entry values on the other side of the keyboard. Furthermore, such modification would be beneficial to the user in helping reducing stress of the fingers and wherein multiple data entry values (i.e. alphabetic or numeric) could be programmed one key on the keypad, and user selectable without typing expertise. Moreover, such modification would have been an obvious extension of the teaching of Vanttila as modified above in claim 14.

Response to Arguments

Applicant's arguments filed on 5/16/2003 have been fully considered but they are not persuasive.

Re claims 1-15: The applicant argues that the prior art or record, Vanttila, cited by the examiner, does recite depressing an actuator for data entry of a first value, while deflecting the actuator for data entry of other values. Rather, Vanttila recites pushing the actuator towards the desired character for all values to be entered and generate a SEND command for selecting the character (see page 6, 4th paragraph of applicant's responses).

The examiner respectfully disagrees with the applicant's arguments for the following reasons. The claimed invention does not specify any vertical movement associated with data entry value. Regarding the limitation "a first data entry value associated with depressing the key/actuator" could be broadly interpreted as the selection menu/button 22 a, b, or c as taught by

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Vanttila and “more additional discrete data entry value associated with deflecting (by definition turning aside) the key” is disclosed by the prior art of record (see col.3, lines 25+). The SEND command, referred by the applicant as means to select a character, is disclosed by the prior art as a means to transmit a dialed number from a cellular phone to a base station, not for data entry value.

Secondly, the applicant argues that the prior art of record, Vanttila fails to recite that the actuator as having a user readable indication of each of the additional data entry values (see page 6, 5th paragraph of applicant’s responses).

The examiner agrees with the applicant’s assessment. Nevertheless, the claimed invention does not specifically recite that each key/actuator has a unique user readable indication”. Should the examiner’s interpretation be erroneous, a 112 2nd paragraph rejection (vague and indefinite) is applied to the claimed invention and the applicant is respectfully requested to differentiate the limitation “the key having a user readable indication” with “ depressing the key”. In other terms, make the distinction among all the keys with different applications and means. Therefore the examiner retains the rejection as set forth in the previous office action (see paper #2).

Re claims 21-25: the applicant argues that the prior art of record, Vanttila, fails to teach a technique for providing a soft key in a system having a hardware key with more than two states (see page 7, last paragraph of applicant’s responses).

The examiner objects to the claimed invention. The lack of an art rejection with this Office action is not an indication of allowable subject matter (i.e., even though claims 21 is rewritten or amended to overcome the rejection as discussed above). The disclosure/claimed language is such that it is impractical to conduct a reasonable search of the prior art by the

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examiner. The claim (21) recites the limitations "a method for providing a soft key with a hardware key (which could used in any system having a keypad/keyboard such cellular phone, personal digital assistant PDA, computer or the like) having more than two states comprising a plurality of data zones, each of the plurality of data zones corresponding to one of the states of the hardware key". The language of the claimed invention is so broad and unrelated to the (previous) apparatus claims, a data entry device. The applicant is respectfully requested to explicitly define the claimed invention and related terms/limitations such "data entry zones (104, 106, 108, 110)" and "data entry states (302, 304, 306, 308...)" and show/prove how they are different from each other also their different use and/or application. Should the examiner's interpretation be incorrect, an election/restriction is applied to the two groups or inventions.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Madan et al. (U.S. 5,496,992) discloses dual trigger multiplexed data entry terminal.

Selker et al. (5,521,596) teaches analog input device located in the primary typing area of a keyboard.

Strauch et al. (U.S. 5,861,823) discloses data entry device having multifunction keys.

Smith (U.S. 5,982,303) teaches numeric for entering alphanumeric data.

Krishman (U.S. 6,377,685) discloses a cluster key arrangement.

Tso et al. (U.S. 6,157,323) teaches a button-key/cylindrical-key alphabetizer.

Montgomery (U.S. 6,441,753) discloses a multi-function key assembly for an electronic device.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

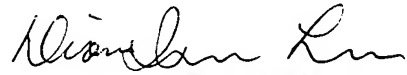
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (703) 305-5437. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

el
Edwyn Labaze
Patent Examiner
Art Unit 2876
July 24, 2003


DIANE I. LEE
PRIMARY EXAMINER